## CLAIMS

Having thus described our invention, what we claim as new and desire to secure by Letters Patent is as follows:

1. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending supply chain management using financial management considerations, said method comprising the steps of:

selecting at least one activity or solution related to supply chain management for consideration;

determining whether the selected at least one activity or solution is affected by financial management information, and if so, then integrating the affecting financial management information with information related to the selected at least one activity or solution;

developing a process to generate a strategic or operational business plan that provides a solution for the selected at least one activity or solution related to supply chain management;

determining whether the process is affected by financial management objectives, and if so, then integrating the affecting financial management objectives with objectives related to the process;

determining whether the process is affected by risk management objectives, and if so, then integrating the affecting risk management objectives with objectives related to the process;

determining whether the process will benefit from utilizing financial management techniques, and if so, then employing financial management techniques benefitting the process; and

performing the process using information, objectives, risk management

objectives, and techniques associated with the at least one selected activity or solution including information, objectives, risk management objectives integrated in the determining steps, and using financial management techniques identified as beneficial to the process.

2. A method as recited in claim 1, wherein the at least one selected activity or solution is selected from the group of

demand planning comprising: forecasting and targeted marketing;

production planning comprising: category management, materials planning, procurement and capacity planning;

transportation planning comprising: carrier management, load planning and import/export regulations compliance;

inventory management,

transportation scheduling comprising: route planning, vehicle scheduling and in-transit goods management;

distribution, finished goods inventory planning,

distributed resources planning, and

deployment planning.

3. A method as recited in claim 1, wherein the financial management objectives are selected from the group of reducing risk, reducing funding costs, maximizing the value of the firm, increasing liquidity, reducing foreign exchange risk, or reducing cost of capital and improving financial asset utilization.

4. A method as recited in claim 1, wherein the risk management objectives are related to risks that affect the enterprise including insurable risks, market risks, business risks, interest rate risks, uninsurable catastrophe risks, weather

risks, political risks, liquidity risks, credit risks and counterparty risks.

5. A method as recited in claim 1, wherein the financial management techniques are selected from the group of value at risk techniques, option valuation analytics, and portfolio management techniques.

6. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending financial management using supply chain management considerations, said method comprising the steps of:

selecting at least one activity or solution related to financial management for consideration;

developing a process to generate a strategic or operational business plan that provides a solution for the selected at least one activity or solution related to financial management;

determining whether the process is affected by supply chain management information, and if so, then integrating the affecting supply chain management information with information related to the process;

determining whether the process is affected by supply chain management objectives, and if so, then integrating the affecting supply chain management objectives with objectives related to the process;

determining whether the process is affected by risk management objectives, and if so, then integrating the affecting risk management objectives with objectives related to the process;

determining whether the process will benefit from utilizing supply chain management techniques, and if so, then employing supply chain management techniques benefitting the process; and

performing the process using information, objectives, risk management

objectives, and techniques associated with the at least one selected activity or solution including information, objectives, risk management objectives integrated in the determining steps, and using supply chain management techniques identified as beneficial to the process.

7. A method as recited in claim 6, wherein the at least one selected activity or solution is selected from the group of

foreign exchange risk management comprising: management of economic exposures, transactional exposures, and accounting exposures;

working capital management comprising: short-term financing, trade financing, current asset management, inter-company financial management, and cash management;

investment analysis comprising: analysis of portfolio investments, foreign direct investments, and capital budgeting;

capital structure strategy and implementation;

risk management;

tax management;

foreign investment analysis comprising: analysis of portfolio investments, and foreign direct investments;

foreign operations financing;

international financing;

special financing vehicles; and

global financing strategy.

8. A method as recited in claim 6, wherein the supply chain management objectives are selected from the group of improving cycle time, increasing customer service, reducing logistics costs, reducing inventory, improving demand forecasts, and improving asset utilization.

9. A method as recited in claim 6, wherein the risk management objectives are related to risks that affect the enterprise including insurable risks, market risks, business risks, interest rate risks, uninsurable catastrophe risks, weather risks, political risks, liquidity risks, credit risks and counterparty risks.

10. A method as recited in claim 6, wherein the supply chain management techniques are selected from the group linear programming, mixed integer programming, optimization and scheduling techniques.

11. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by both extending supply chain management using financial management considerations and extending financial management using supply chain management considerations, said method comprising the steps of:

selecting at least one activity or solution related to supply chain management for consideration;

selecting at least one activity or solution related to financial management for consideration;

developing a process to generate a strategic or operational business plan that provides a solution both for the selected at least one activity or solution related to supply chain management and for the at least one activity or solution related to financial management;

determining whether the selected at least one activity or solution relating to supply chain management is affected by financial management information, and determining whether the selected at least one activity or solution relating to financial management is affected by supply chain management information, and if so, then integrating the affecting information

with information related to both information related to the selected at least one activity or solution related to supply chain management and information related to the selected at least one activity or solution related to financial management;

determining whether the process is affected by financial management objectives, and determining whether the process is affected by supply chain management objectives, and if so, then integrating the affecting objectives with objectives related to the process;

determining whether the process is affected by risk management objectives, and if so, then integrating the affecting risk management objectives with risk management objectives related to the process;

determining whether the process will benefit from utilizing supply chain management techniques, and if so, then employing supply chain management techniques benefitting the process;

determining whether the process will benefit from utilizing financial management techniques, and if so, then employing financial management techniques benefitting the process; and

performing the process using information, objectives, risk management objectives, and techniques associated with the at least one selected activity or solution relating to supply chain management and financial management, including information, objectives, risk management objectives integrated in the determining steps, and using supply chain management techniques and financial management techniques identified as beneficial to the process.

12. A method as recited in claim 11, wherein the at least one selected activity or solution related to supply chain management is selected from the group of

demand planning comprising: forecasting and targeted marketing;

production planning comprising: category management, materials

planning, procurement and capacity planning;

transportation planning comprising: carrier management, load planning and import/export regulations compliance;

inventory management,

transportation scheduling comprising: route planning, vehicle scheduling and in-transit goods management;

distribution, finished goods inventory planning,

distributed resources planning, and

deployment planning.

13. A method as recited in claim 11, wherein the financial management objectives are selected from the group of reducing risk, reducing funding costs, maximizing the value of the firm, increasing liquidity, reducing foreign exchange risk, or reducing cost of capital and improving financial asset utilization.

14. A method as recited in claim 11, wherein the risk management objectives are related to risks that affect the enterprise including insurable risks, market risks, business risks, interest rate risks, uninsurable catastrophe risks, weather risks, political risks, liquidity risks, credit risk, and counterparty risks.

15. A method as recited in claim 11, wherein the financial management techniques are selected from the group of value at risk techniques, option valuation analytics, and portfolio management techniques.

16. A method as recited in claim 11, wherein the at least one selected activity or solution related to financial management is selected from the group of

foreign exchange risk management comprising: management of

economic exposures, transactional exposures, and accounting exposures;

working capital management comprising: short-term financing, trade financing, current asset management, inter-company financial management, and cash management;

investment analysis comprising: analysis of portfolio investments, foreign direct investments, and capital budgeting;

capital structure strategy and implementation;

risk management;

tax management;

foreign investment analysis comprising: analysis of portfolio investments, and foreign direct investments;

foreign operations financing;

international financing;

special financing vehicles; and

global financing strategy.

17. A method as recited in claim 11, wherein the supply chain management objectives are selected from the group of improving cycle time, increasing customer service, reducing logistics costs, reducing inventory, improving demand forecasts, and improving asset utilization.

18. A method as recited in claim 11, wherein the supply chain management techniques are selected from the group linear programming, mixed integer programming, optimization and scheduling techniques.

19. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending supply chain management using financial management considerations, said method comprising the step

of generating a strategic or operational business plan using information and models derived from at least one of the following steps:

a. designing a supply chain model for a firm utilizing firm-specific information including strategic objectives, a desired level of risk, market position of the firm and industry competitive landscape;

b. determining which customer demands to fulfill, and when to fulfill them, while factoring in demand uncertainty, capacity and time constraints;

c. developing inventory policies to service stochastic customer demand, using information related to service targets, budgets, stock out probabilities and costs and demand fulfillment rates;

d. mitigating foreign exchange risk by considering the firm's global foreign exchange position using vendor selection, thereby reducing foreign exchange exposures; and

e. dynamically shifting production in coordination with procurement planning to locations with weak currencies, thereby reducing production costs.

20. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending supply chain management using financial management considerations, said method comprising the steps of:

designing a supply chain model for a firm utilizing firm-specific information including strategic objectives, a desired level of risk, market position of the firm and industry competitive landscape;

performing at least one optimization technique selected from the group of:

a. optimizing ownership structure and transfer pricing methodologies for an existing profit maximizing supply chain model;

b. optimizing supply chain design for an existing ownership structure

by seeking to maximize profit or value of the firm within the context of international taxation and foreign exchange risk; and

c. optimizing supply chain design simultaneously with ownership structure, with the objective of maximizing profit or the value of the firm;

21. A method as recited in claim 20, wherein the step of optimizing supply chain design for an existing ownership structure considers the foreign exchange risk by trading-off the firm's profitability and benefits of reducing risk by creating a supply chain that is naturally hedged using a constrained mathematical model with this trade-off modeled in objective function, thereby creating an efficient frontier showing optimal expected profits for a chosen level of risk.

22. A method as recited in claim 20, wherein the step of performing at least one optimization technique is accomplished by using a network design problem methodology.

23. A method as recited in claim 20, wherein the step of designing a supply chain model further comprises the step of performing Monte Carlo simulation to test robustness of proposed supply chain designs.

24. A method as recited in claim 23, wherein the Monte Carlo simulation provides an analysis of impacts of varying foreign exchange rate scenarios.

25. A method as recite in claim 23, wherein the Monte Carlo simulation provides and analysis of impacts of foreign exchange movements on profitability of a selected supply chain design, wherein a customer demand is correlated with foreign exchange rates.

26. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending supply chain management using financial management considerations, said method comprising the steps of:

designing a supply chain model for a firm utilizing firm-specific information including strategic objectives, a desired level of risk, market position of the firm and industry competitive landscape; and

estimating a loss in profitability associated with designing a supply chain to reduce risk; and

implementing the supply chain model designed in the designing step if a cost of obtaining a similar position using traditional financial risk management techniques is more than the cost using the supply chain model designed in the designing step.

27. A method to assist decision-making, and to closely monitor various performance measures of an enterprise by extending supply chain management using financial management considerations, said method comprising the steps of:

designing a supply chain model for a firm utilizing firm-specific information including strategic objectives, a desired level of risk, market position of the firm and industry competitive landscape; and

identifying optimal supply chain designs to maximize profitability or firm value at a selected risk level, with respect to at least one source of risk.

28. A method as recited in claim 27, wherein the at least one source of risk is selected from the group of political risk, catastrophe risk, business risk, geographical risk and local market risks.